

Arian Rokkum Jamasb

arian@jamasb.io

Date of Birth: 5th June 1996 | **Nationality:** Norwegian | **Webpage:** jamasb.io | **Github:** a-r-j | **LinkedIn:** /jamasb

EDUCATION

2018-(2022)	PhD. Computational Biology Group, Artificial Intelligence Group, Department of Computer Science and Department of Biochemistry, University of Cambridge Artificial intelligence methods & multiplex network modelling for drug discovery. <i>Supervisor:</i> Professor Sir Tom Blundell, Department of Biochemistry. <i>Second Supervisor:</i> Professor Pietro Lió, Department of Computer Science and Technology.
2014-2017	BSc. Biochemistry, Imperial College London (1st Class Honours) <i>Dissertation:</i> Automated Quantification of Cells Across Whole-Brain Image Volumes. <i>Specialist modules:</i> Bioinformatics, Integrative Systems Biology, Neuroscience Research.
2007-2014	The Perse School, Cambridge. Academic Scholar. <i>A Levels:</i> Mathematics, Further Mathematics, Biology, Chemistry

RESEARCH EXPERIENCE

2017-2018	<i>Graduate Research Assistant. Drosophila</i> Connectomics Group, Department of Zoology, University of Cambridge. Neural Circuit Reconstruction and Connectomic Analysis of a Whole-Brain <i>Drosophila</i> Electron Microscopy Image Volume (Dr. G. Jefferis, Dr. M. Costa). <ul style="list-style-type: none">• Examining odour information integration circuits and their role in innate sexual behaviour• Neuroinformatics, development of computational tools, Analysis of electron micrographs• Statistical image analysis, image registration
2017	<i>Undergraduate Dissertation.</i> Department of Life Sciences, Imperial College London. Automated Quantification of Neuronal Distribution Across Whole-Brain Image Volumes (Prof S. Brickley). <ul style="list-style-type: none">• Image processing, computer vision, algorithm design• Whole-brain 2-photon imaging in mice• Bioinformatics
2016-2017	<i>Undergraduate Research Assistant.</i> Department of Life Sciences, Imperial College London. Developing a Dynamic Optogenetics System for High-Throughput Behavioural Manipulation of <i>Drosophila</i> (Dr G. Gilestro). <ul style="list-style-type: none">• Statistical analysis and modelling of large time data• Computer-aided design (CAD), 3D printing and electrical engineering• Machine learning applied to behaviour analysis

SCIENTIFIC COMPUTING AND PROGRAMMING¹

R	<i>Highly competent:</i> base functions, statistics, algebra, data visualisation and package development.
python	<i>Highly competent:</i> scientific computing, data analysis, machine learning, deep learning
Frameworks	<i>Highly Competent:</i> PyTorch, Tensorflow, Keras, DGL
System	<i>Competent:</i> GNU/Linux.
Web	<i>Competent:</i> javascript and HTML/CSS.

¹Most of my contributions are open-source and publicly available (see github.com/a-r-j)

PUBLICATIONS²

PRE-PRINTS



- 2020 **Complete Connectomic Reconstruction of Olfactory Projection Neurons in the Fly Brain.** A. S. Bates, P. Schlegel, R. J. V. Roberts, N. Drummond, I. F. M. Tamimi, R. G. Turnbull, X. Zhao, E. C. Marin, P. D. Popovici, S. Dhawan, **A. R. Jamasb**, A. Javier, F. Li, G. M. Rubin, S. Waddell, D. D. Bock, M. Costa, G. S. X. E. Jefferis. *bioRxiv*

Journal Articles



- 2019 **Functional and Anatomical Specificity in a Higher Olfactory Centre.** S. Frechter, A. S. Bates, S. Tootoonian, M. J. Dolan, J. D. Manton, **A. R. Jamasb**, J. Kohl, D. Bock, G. S. X. E. Jefferis. *eLife*



- 2017 **Ethoscopes: An Open Platform for High-Throughput Ethomics.** Q. Geissmann, L. García Rodríguez, E. J. Beckwith, A. S. French, **A. R. Jamasb**, and G. F. Gilestro. *PLoS Biology*.

UNDER REVIEW

- 2020 **Benchmarking Scalable Active Learning Strategies on Molecules,** A. A. Aldrick, R. Griffiths, P. Jones, W. McCorkindale, **A. R. Jamasb**, B. Day, A. Lee. *ICLR 2020*

IN PREPARATION

DeepProt - A Deep Learning Library for Protein Structures. **A. R. Jamasb**

Book Chapters

In Preparation

- 2020 **Machine Learning Approaches for Prediction of Protein Interactions.** **A. R. Jamasb** & T. L. Blundell. *Methods in Molecular Biology: Proteomics Data Analysis*. Springer.

TEACHING

- 2019- Supervisor, Part II Computer Vision, *Department of Computer Science & Technology, University of Cambridge*
2019- Supervisor, Part II Bioinformatics, *Department of Computer Science & Technology, University of Cambridge*

VOLUNTEERING AND OUTREACH

- 2019 Local Organiser, *IWBDA Conference*
Events Officer, *Queens' College MCR*
2018 Volunteer Demonstrator, Science Festival, *University of Cambridge*
2016 Webmaster, *Imperial College Biochemistry Society*
Public engagement volunteer, *Biochemical Society*
Public engagement volunteer, *Royal Society of Biology*.
2014 Volunteer tutor in mathematics, *Queen Edith's Primary School, Cambridge*

²All publications in the top 5% of research outputs tracked by Altmetric. Detailed list on my webpage (jamasb.io/publications)

REFERENCES

PhD Supervisor: Professor Sir Tom Blundell (tom@bioc.cryst.cam.ac.uk)

PhD Supervisor: Professor Pietro Lió (pl219@cam.ac.uk)

PI, Drosophila Connectomics Group: Dr Gregory Jefferis (jefferis@mrc-lmb.ac.uk)

Project Leader, Drosophila Connectomics Group: Dr Marta Costa (mmc46@cam.ac.uk)

Undergraduate Personal Tutor: Professor Anne Dell (a.dell@imperial.ac.uk)
